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TIA Portal Version 19: Motion control made easy for all users

- **Intuitive motion control enables a more flexible production and counteracts the shortage of skilled workers**
- **New Simatic Motion Interpreter software: Program motion sequences with no specialized knowledge**
- **New Sinamics drive generation completes Siemens' comprehensive motion concept**

Siemens is introducing the latest version of the Totally Integrated Automation (TIA) portal at the SPS trade show in Nuremberg. With version 19 of the engineering framework, motion control is easier than ever. It's intuitive for non-experts and new users, and this is crucial for industrial companies. To flexibly manage an ever-increasing variety of products and cope with the shortage of skilled workers, more processes need to be automated – and this means that machines and systems and the resulting demands on motion control and automation technology are becoming increasingly complex.

New features of the TIA Portal V19

In the TIA Portal, motion control is intuitive and completely integrated, from engineering and control to drives of machines and plants. Regardless of whether the user wants to control a single axis or complex kinematics, the TIA Portal provides support with graphical interfaces, intuitive technology objects, and extensive diagnostic options like tracing. Version 19 brings even more enhancements: The new version offers extended functions for improved engineering, including software units that help with modularization. This allows different users to create their own workspaces and write

complex motion applications, among other things. These modular areas make it easy to reuse applications, they're easier to deploy, track, and trace, and creating versions is also easier. The introduction of the new engineering feature Named Values enables the creation of readable and easy-to-maintain code as well as clear debugging, and this means greater programming convenience for users. The enhancements in TIA Portal V19 also support the use of SIMATIC CPUs for high-end applications in important segments of mechanical engineering. They also enable the simulation of all types of hardware and software controllers with S7-PLCSIM (Adv.).

Simatic Motion Interpreter

Siemens masters the challenge created by the shortage of skilled workers in automation with the Simatic Motion Interpreter software, which is integrated in the TIA Portal. The Simatic Motion Interpreter doesn't require in-depth programming knowledge; it acts more like a navigation system, where the user enters a simple sequential description of the movements that should be performed. The Simatic Motion Interpreter then takes over the programming of the corresponding motion order. From a single axis to complex kinematics with up to six interpolating axes. The Simatic S7-1500 T-CPU uses software to operate as a simple, integrated robot controller.

Sinamics drive generation

The new generation of Sinamics drives – suitable for use with delta pickers, for example – completes Siemens' comprehensive motion control concept. Depending on the application, the drives offer a variety of advantages. For example, the compact and precise Sinamics S200 is fully integrated into TIA Portal and therefore very easy to engineer. The Sinamics S210 offers safety functions up to Safety Integrity Level 3, and the Sinamics G220 sets a new benchmark for energy efficiency thanks to 95 percent less harmonic distortion. Using a digital twin of the drives via Sinamics DriveSim Basic and Advanced, tests and optimizations can be performed in the virtual world.



Siemens' comprehensive motion control concept makes the interplay of engineering, control, and drives easy – for all users.

This press release as well as further information on Siemens at SPS are available at www.siemens.com/press/sps23

Find further information on TIA Portal at www.siemens.com/tia-portal

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